## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

(i) APPLICANT: STRACKE, MARY LIOTTA, LANCE

SCHIFFMANN, ELLIOTT

KRUTZSCH, HENRY

(ii) TITLE OF INVENTION: MOTILITY STIMULATING PROTEIN USEFUL IN CANCER DIAGNOSIS AND THERAPY

- (iii) NUMBER OF SEQUENCES: 33
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: CUSHMAN DARBY AND CUSHMAN
  - (B) STREET: 1615 L STREET, N.W.
  - (C) CITY: WASHINGTON
  - (D) STATE: D.C.
  - (E) COUNTRY: U.S.A.
  - (F) ZIP: 20036
  - (v) COMPUTER READABLE FORM:
    - (A) MEDIUM TYPE: Tape
    - (B) COMPUTER: IBM PC compatible
    - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
    - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
  - (vi) CURRENT APPLICATION DATA:
    - (A) APPLICATION NUMBER:
    - (B) FILING DATE:
    - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
  - (A) NAME: SCOTT, WATSON T
  - (B) REGISTRATION NUMBER: 26581
  - (ix) TELECOMMUNICATION INFORMATION:
    - (A) TELEPHONE: (202)-861-3000
    - (B) TELEFAX: (202) 822-0944
    - (C) TELEX: 6714627CUSH
- (2) INFORMATION FOR SEQ ID NO:1:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 6 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: Trp His Val Ala Ala Asn

- (2) INFORMATION FOR SEQ ID NO:2:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 7 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Pro Xaa Leu Asp Val Tyr Lys

- (2) INFORMATION FOR SEQ ID NO:3:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 5 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Tyr Pro Ala Phe Lys 5

- (2) INFORMATION FOR SEQ ID NO:4:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 5 amino acids(B) TYPE: amino acid

    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Gln Ala Glu Val Ser

- (2) INFORMATION FOR SEQ ID NO:5:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 10 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Pro Glu Glu Val Thr Xaa Pro Asn Tyr Leu 1 5 10

- (2) INFORMATION FOR SEQ ID NO:6:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 9 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Tyr Asp Val Pro Trp Asn Glu Thr Ile
5

- (2) INFORMATION FOR SEQ ID NO:7:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 10 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Ser Pro Pro Phe Glu Asn Ile Asn Leu Tyr 5 10

- (2) INFORMATION FOR SEQ ID NO:8:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Gly Gly Gln Pro Leu Trp Ile Thr Ala Thr Lys 1 5 10

- (2) INFORMATION FOR SEQ ID NO:9:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 16 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Val Asn Ser Met Gln Thr Val Phe Val Gly Tyr Gly Pro Thr Phe Lys 1 5 10 15

- (2) INFORMATION FOR SEQ ID NO:10:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 12 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Asp Ile Glu His Leu Thr Ser Leu Asp Phe Phe Arg
1 5 10

- (2) INFORMATION FOR SEQ ID NO:11:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 23 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear

-	(xi)	SEQU	JENC	E DES	SCRII	PTIO	N: S	EQ II	ON C	:11:						
	Thr 1	Glu	Phe	Leu	Ser 5	Asn	Tyr	Leu	Thr	Asn 10	Val	Asp	Asp	Ile	Thr 15	Leu
	Val	Pro	Gly	Thr 20	Leu	Gly	Arg									
(2)	INFO	RMAT	ON I	FOR S	SEQ :	ID N	0:12	:								
	(i)	(B)	LEI TYI STI	E CHANGTH: PE: 1 RANDI	: 18 nucle EDNES	base eic a SS: s	e pa: acid sing:	irs								
	(xi)	SEQU	JENC	E DES	SCRII	PTIO	<b>1:</b> S	EQ II	D NO	:12:						
GTT	GCAG	CN AC	CRTG	CCA												18
(2)	INFO	RMATI	ION 1	FOR S	SEQ :	ID No	0:13	:								
	(i)	(B)	LEI TYI STI	E CHA NGTH: PE: 1 RANDI POLOG	: 18 nucle EDNES	base eic a SS: s	e pa: acid sing:	irs								
	(xi)	SEQU	JENC	E DES	SCRII	PTIO	N: S	EQ II	ои о	:13:						
TGGC	CAYGTI	NG C	rgccz	AAC												18
(2)	INFO	RMAT	ION I	FOR S	SEQ :	ID N	0:14	:								
	(i)	(B)	LEI TYI STI	E CHA NGTH: PE: 1 RANDI POLOG	: 15 nucle EDNE:	base eic a SS: a	e pa: acid sing:	irs								
	(xi)	SEQU	JENC:	E DES	SCRII	PTIO	N: S	EQ II	ои о	:14:						
CTTC	SAAGG	CA GO	GGTA													15

(2)	INFO	RMATION FOR SEQ ID NO:15:	
-	(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 15 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:15:	
TAYO	CCTGCI	NT TYAAG	15
(2)	INFO	RMATION FOR SEQ ID NO:16:	
	(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 15 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single  (D) TOPOLOGY: linear	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:16:	
GGT	NACYT	CY TCAGG	15
(2)	INFO	RMATION FOR SEQ ID NO:17:	
	(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 15 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single  (D) TOPOLOGY: linear	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:17:	
ССТ	GARGA	RG TNACC	15
(2)	INFO	RMATION FOR SEQ ID NO:18:	
	(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 21 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single	

-	(D) TOPOLOGY: linear	
•	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:	
NGT	NGCRTCR AATGGCACRT C	2:
(2)	INFORMATION FOR SEQ ID NO:19:	
	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 21 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:	
GAY	GTGCCAT TYGAYGCNAC N	2:
(2)	INFORMATION FOR SEQ ID NO:20:	
	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 21 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:	
GTTI	DATRTTS TCRAATGGGG G	2:
(2)	INFORMATION FOR SEQ ID NO:21:	
	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 21 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

CCCCCATTTG AGAACATCAA C

(2)	INFORMATION FOR SEQ ID NO:22:	
-	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 33 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:	
CTT	NGTNGCN GTDATCCANA RGGGYTGGCC GCC	33
(2)	INFORMATION FOR SEQ ID NO:23:	
	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 33 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:	
GGC	GGCCARC CCYTNTGGAT HACNGCNACN AAG	33
(2)	INFORMATION FOR SEQ ID NO:24:	
	<ul> <li>(i) SEQUENCE CHARACTERISTICS:</li> <li>(A) LENGTH: 39 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul>	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:	
CTT	RAAGGTG GGGCCRTAGC CCACRAAGAC TGTYTGCAT	39
(2)	INFORMATION FOR SEQ ID NO:25:	
	<ul><li>(i) SEQUENCE CHARACTERISTICS:</li><li>(A) LENGTH: 39 base pairs</li><li>(B) TYPE: nucleic acid</li><li>(C) STRANDEDNESS: single</li></ul>	

(D) TOPOLOGY: linear

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(x	i) SEQUENCE DESCRIPTION: SEQ ID NO:25
ATGCAR	ACAG TCTTYGTGGG CTAYGGCCCC ACCTTYAAR
(2) IN	FORMATION FOR SEQ ID NO:26:
(	<ul> <li>i) SEQUENCE CHARACTERISTICS:         <ul> <li>(A) LENGTH: 9 amino acids</li> <li>(B) TYPE: amino acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul> </li> </ul>
(x	i) SEQUENCE DESCRIPTION: SEQ ID NO:26
G 1	ln Tyr Leu His Gln Tyr Gly Ser Ser 5
(2) IN	FORMATION FOR SEQ ID NO:27:
(	<ul> <li>i) SEQUENCE CHARACTERISTICS:         <ul> <li>(A) LENGTH: 5 amino acids</li> <li>(B) TYPE: amino acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul> </li> </ul>
(x	i) SEQUENCE DESCRIPTION: SEQ ID NO:27
v 1	al Leu Asn Tyr Phe 5
(2) IN	FORMATION FOR SEQ ID NO:28:
(	<ul> <li>i) SEQUENCE CHARACTERISTICS:         <ul> <li>(A) LENGTH: 5 amino acids</li> <li>(B) TYPE: amino acid</li> <li>(C) STRANDEDNESS: single</li> <li>(D) TOPOLOGY: linear</li> </ul> </li> </ul>

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Tyr Leu Asn Ala Thr

- (2) INFORMATION FOR SEQ ID NO:29:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 amino acids

    - (B) TYPE: amino acid (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

His Leu Leu Tyr Gly Arg Pro Ala Val Leu Tyr

- (2) INFORMATION FOR SEQ ID NO:30:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Ser Tyr Pro Glu Ile Leu Thr Pro Ala Asp Asn

- (2) INFORMATION FOR SEQ ID NO:31:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 14 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

Xaa Tyr Gly Phe Leu Phe Pro Pro Tyr Leu Ser Ser Pro

(2) INFORMATION FOR SECTION NO.3	(2)	INFORMATION	FOR	SEO	ID	NO:32
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- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15 amino acids
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Thr Phe Pro Asn Leu Tyr Val Xaa Ala Gln Gly Leu Tyr Trp Ser 1 5 10 15

- (2) INFORMATION FOR SEQ ID NO:33:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 22 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

Val Asn Val Ile Ser Gly Pro Ile Phe Asp Tyr Asp Tyr Asp Gly Leu
5 10 15

Xaa Asp Thr Glu Asp Lys 20